


NOTES:

- 1) ALL WIRE IAW MIL-W-22759/34 UNLESS OTHERWISE SPECIFIED.
- 2) ALL CABLE IAW MIL-C-27500 UNLESS OTHERWISE SPECIFIED.
- 3) ALL JUMPER WIRE 22 AWG UNLESS OTHERWISE NOTED.
- 4) ALL COAXIAL CABLE IAW MIL-C-17 UNLESS OTHERWISE SPECIFIED.
- 5) PERFORM ALL WORK IAW OEM SPM OR STANDARD PRACTICES OF AC 43.13-1B/2A (OR LATER APPLICABLE REVISION):

AIRCRAFT HARDWARE	AC 43.13-1B CHAPTER 7
AIRCRAFT ELECTRICAL SYSTEMS	AC 43.13-1B CHAPTER 11
RADIO INSTALLATIONS	AC 43.13-2A CHAPTER 2
ANTENNA INSTALLATIONS	AC 43.13-2A CHAPTER 3
ADDING OR RELOCATING INSTRUMENTS	AC 43.13-2A CHAPTER 11

- 6) DENOTES MIL-S-81824/1-X SPLICE  UNLESS OTHERWISE SPECIFIED.

- 7) THE MEMORY UP/DOWN PUSH BUTTONS AND BAND ARE OPTIONAL.
- 8) THIS INPUT IS FOR BOTH 28 VDC AND 5 VAC PANEL LIGHTING. SELECT THE APPROPRIATE VOLTAGE IN THE CONFIGURATION MENU. SEE PARA 2.19 OF INSTALL MANUAL.
- 9) RESERVED..

- 10) CONNECT TO THE APPROPRIATE AIRCRAFT DIMMING BUS.
- 11) FOR ALTERNATIVE AUDIO PANELS REFER TO THE AUDIO PANEL INSTALLATION MANUAL. CONNECT TO CHANNELS AS APPLICABLE.

- 12) ITEM 10 IS AN OPTIONAL VARIANT OF ITEM 9.

- 13) ITEM 11 IS AN OPTIONAL VARIANT OF ITEM 9.

- 14) USE ANY AVAILABLE SPACE ON THE 28 VDC BUS PP6.

- 15) REFER TO TECHNISONIC INDUSTRIES LTD. INSTALLATION & OPERATING INSTRUCTIONS TIL DOCUMENT No. 11RE442 (TDFM-9000), 13RE483 (TDFM-9100), 13RE472 (TDFM-9200), or 13RE471 (TDFM-9300) FOR MODEL VARIATIONS.

- 16) PERFORM POST INSTALLATION EMI TEST IAW TECHNISONIC INSTALLATION & OPERATING INSTRUCTIONS TIL DOCUMENT No. 11RE442 (TDFM-9000), 13RE483 (TDFM-9100), 13RE472 (TDFM-9200), or 13RE471 (TDFM-9300) SECTION 2.22.

- 17) QTY 1 REQUIRED FOR INSTALLATION. QTY 1 REQUIRED FOR SPARE.

- 18) REFER TO APPLICABLE TECHNISONIC INDUSTRIES INSTALLATION & OPERATING INSTRUCTIONS 11RE442 (TDFM-9000), 13RE483 (TDFM-9100), 13RE472 (TDFM-9200), or 13RE471 (TDFM-9300) FOR ANTENNA AND TUNER SELECTION. TDFM-9300 ONLY: P1 PROVISION FOR 1 ANTENNA TUNER. TDFM-9200 ONLY: P1 AND P2 PROVISIONS FOR 2 ANTENNA TUNERS.

- 19) DELETED.

- 20) IF RC-9000 OR RC-9100 IS NOT INSTALLED, DO NOT INSTALL FUSE, ITEM 25, OR CIRCUIT BREAKER, ITEM 40, (AS APPLICABLE). ALSO DO NOT INSTALL WIRES TDFM039A22, TDFM 006A22, AND TDFM0040A22.

- 21) REFER TO WIRING DETAIL FOR OPTION: FOXTRONICS FLX-3050B ANTENNA TUNER. IF NOT USED, DO NOT INSTALL FUSE, ITEM 28, OR CIRCUIT BREAKER, ITEM 41 (AS APPLICABLE). ALSO DO NOT INSTALL WIRE TDFM047A22.

- 22) REFER TO SECTION 2.7 OF APPLICABLE TECHNISONIC INDUSTRIES INSTALLATION & OPERATING INSTRUCTIONS 11RE442 (TDFM-9000), 13RE483 (TDFM-9100), 13RE472 (TDFM-9200), or 13RE471 (TDFM-9300) FOR DONGLE WIRING INSTRUCTIONS.

- 23) ITEMS 33 IS AN OPTIONAL VARIANT OF ITEM 9.

- 24) ITEM 37, PLF-900 POWER LINE FILTER IS AN OPTIONAL COMPONENT. (SEE PAGE 3)

- 25) APPLICABLE TO ROTORCRAFT EQUIPPED WITH A GENEVA / EAGLE COPTERS P122 OR P132 CONSOLE INSTALLED BY TCCA STC SH93-83, OR FAA STC SH4747NM, OR OTHER FOREIGN EQUIVALENT.

- 26) APPLICABLE TO ROTORCRAFT EQUIPPED WITH OEM FUSE CONSOLE.

QTY / DASH No.								LIST OF MATERIAL				
-015	-013	-011	-009	-007	-005	-003	-001	ITEM	PART NUMBER	DESCRIPTION	SPEC	MATERIAL or ALTERNATE P/N
-	-	-	-	-	-	-	1	1	-001	TRANSCEIVER TDFM-9000 ONLY	-	-
-	-	-	-	-	-	1	-	2	-003	TDFM-9000 AND REMOTE CONTROLLER RC-9000	-	-
-	-	-	-	-	1	-	-	3	-005	TRANSCEIVER TDFM-9200 ONLY	-	-
-	-	-	-	1	-	-	-	4	-007	TDFM-9200 AND REMOTE CONTROLLER RC-9000	-	-
-	-	-	1	-	-	-	-	5	-009	TRANSCEIVER TDFM-9300 ONLY	-	-
-	-	1	-	-	-	-	-	6	-011	TDFM-9300 AND REMOTE CONTROLLER RC-9000	-	-
-	1	-	-	-	-	-	-	7	-013	TRANSCEIVER TDFM-9100 ONLY	-	-
1	-	-	-	-	-	-	-	8	-015	TDFM-9100 AND REMOTE CONTROLLER RC-9100	-	-
-	-	-	-	-	-	1	1	9	101263-(0)-(90)-(0)-(0)-(0)	TDFM-9000	TECHNISONIC	-
-	-	-	1	-	-	-	-	10	101263-(0)-(92)-(0)-(0)-(0)	TDFM-9200	TECHNISONIC	-
-	-	-	-	-	-	-	-	11	111267-(0)-(93)-(0)-(0)-(0)	TDFM-9300	TECHNISONIC	-
-	-	1	-	1	-	1	-	12	121273-(0)	RC-9000	TECHNISONIC	MATERIAL
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	13	AV-925	VHF/UHF/700/800 ANTENNA	RAMI ANTENNA	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	14	21-50-45	MULTIBAND FM COMM ANTENNA	COOPER ANTENNAS	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	15	CI-295-250	DUAL BAND/DUAL PORT ANTENNA	COMANT INDUSTRIES	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	16	CI-295-200	DUAL BAND / DUAL PORT ANTENNA	COMANT INDUSTRIES	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	17	CI-285	RADIOPHONE ANTENNA	COMANT INDUSTRIES	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	18	CI-275	RADIOPHONE ANTENNA	COMANT INDUSTRIES	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	19	CI-292-4	FM 136 TO 174 EXTENDED BAND ANTENNA	COMANT INDUSTRIES	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	20	CI-292-3	FM 136 TO 174 EXTENDED BAND ANTENNA	COMANT INDUSTRIES	-
-	-	A/R	A/R	A/R	A/R	-	-	21	FLX-3050B	ANTENNA/ANTENNA TUNER, 30 TO 50 MHZ	FOXTRONICS	-
-	-	A/R	A/R	A/R	A/R	-	-	22	S65-8282-34	ALTERNATE ANTENNA, 30 TO 50 MHZ	SENSOR SYSTEMS	-
-	-	A/R	A/R	A/R	A/R	-	-	23	CI-292-1	VHF AM 118 TO 138 MHZ ANTENNA	COMANT INDUSTRIES	-
1	1	1	1	1	1	1	1	24	HA21 10U	FUSE, 10 AMPS	EUROCOPTER	OR EQUIVALENT
1	-	1	-	1	-	1	-	25	HA21 2U5	FUSE, 2.5 AMPS	EUROCOPTER	OR EQUIVALENT
-	-	1	1	1	1	1	1	26	069662-1	IN-9000/9200/9300 INSTALLATION KIT	TECHNISONIC	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	27	SRA-6000	SWITCHED RECEIVER ATTENUATOR	TECHNISONIC	-
A/R	A/R	A/R	A/R	A/R	A/R	-	-	28	HA21 1U5	FUSE, 1.5 AMPS	EUROCOPTER	OR EQUIVALENT
A/R	A/R	A/R	A/R	A/R	A/R	-	-	29	S65-8282-51	UHF AM ANTENNA 225-400 MHZ	SENSOR SYSTEMS	-
A/R	A/R	A/R	A/R	A/R	A/R	-	-	30	AT-256/ARC	UHF AM ANTENNA 225-400 MHZ	RAMI ANTENNA	-
A/R	A/R	A/R	A/R	A/R	A/R	-	-	31	AT-1108/ARC	VHF/UHF ANTENNA	RAMI ANTENNA	-
A/R	A/R	A/R	A/R	A/R	A/R	-	-	32	S65-1227()	UHF ANTENNA 225-400 MHZ	SENSOR SYSTEMS	-
1	1	-	-	-	-	-	-	33	121270-(0)-(91)-(0)-(0)-(0)	TDFM-9100	TECHNISONIC	-
1	-	-	-	-	-	-	-	34	131281-(0)	RC-9100	TECHNISONIC	-
1	-	-	-	-	-	-	-	35	149534-1	IN-RC91 INSTALLATION KIT	TECHNISONIC	-
1	1	-	-	-	-	-	-	36	139463-1	IN-9100 INSTALLATION KIT	TECHNISONIC	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	37	PLF-900	POWER LINE FILTER WITH CABLE ASSEMBLY	TECHNISONIC	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	38	CI-295-300	TRI-BAND ANTENNA, 136-174 / 380-520 / 764-870 MHz	COMANT INDUSTRIES	-
1	1	1	1	1	1	1	1	39	7277-2-10	CIRCUIT BREAKER, 10 AMPS	KLIXON	-
1	-	1	-	1	-	1	-	40	7277-2-2 1/2	CIRCUIT BREAKER, 2.5 AMPS	KLIXON	-
A/R	A/R	A/R	A/R	A/R	A/R	-	-	41	7277-2-1 1/2	CIRCUIT BREAKER, 1.5 AMPS	KLIXON	-
A/R	A/R	A/R	A/R	A/R	A/R	-	-	42	133956-1	VHF HIGH PASS FILTER, HPF-136	TECHNISONIC	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	43	CI-306	806 - 870 MHZ ANTENNA	COMANT	-
A/R	A/R	A/R	A/R	A/R	A/R	A/R	A/R	44	223116-1	ASU-9000, ANTENNA SWITCHING UNIT	TECHNISONIC	-

- 27) REFER TO GENEVA CONSOLE WIRING DIAGRAM DWG No. G12132-12-XXX, AS APPLICABLE TO ROTORCRAFT UNDER MODIFICATION. INSTALL DEPICTED CIRCUIT BREAKERS IN SPARE LOCATIONS THAT ARE CONNECTED ON EITHER THE 28VDC BUS BAR PP6, OR THE INSTALLER DEFINED AVIONICS / RADIO BUS BAR THAT IS FED BY PP6. LABEL CIRCUIT BREAKERS AS DEPICTED. ALL WIRE ON LOAD SIDE OF CB UP TO CONSOLE DISCONNECT TO BE 16AWG MINIMUM.
- 28) ITEM 42, VHF HIGH PASS FILTER IS OPTIONAL. RECOMMENDED TO BE INSTALLED IN LINE WITH ANY ANTENNA THAT IS DESIGNATED TO A VHF FM TRANSCEIVER MODULE TO MINIMIZE INTERFERENCE TO A CO-EXISTING VHF AM COMM SYSTEM.
- 29) ITEM 27, IS OPTIONAL. IT MAY BE INSTALLED IN LINE WITH ALL TDFM ANTENNAS TO PROVIDE ATTENUATION TO PREVENT RX OVERLOAD WHEN OPERATING THE ROTORCRAFT IN A HIGH DENSITY RF ENVIRONMENT. FOR VHF BAND, MAY BE INSTALLED IN COMBINATION WITH ITEM 42, SEE NOTE 28.
- 30) THE MAXIMUM NUMBER OF ANTENNAS DEPENDS ON THE INSTALLED TDFM-9x000 SERIES FM TRANSCEIVER:
 TDFM-9000: UP TO SIX ANTENNAS
 TDFM-9100: UP TO TWO ANTENNAS
 TDFM-9200: UP TO FOUR ANTENNAS
 TDFM-9300: UP TO FIVE ANTENNAS

ITEM 44, ASU-9000 ANTENNA SWITCHING UNIT, IS AN OPTIONAL COMPONENT. INSTALLATION OF THE ASU-9000 IS TO BE PERFORMED IN ACCORDANCE WITH SECTION 2.4 OF TECHNISONIC INDUSTRIES ASU-9000 ANTENNA SWITCHING UNIT INSTALLATION INSTRUCTIONS, 22RE630 REV. B OR LATER APPROVED REVISION. ITS 1A FUSE OR CIRCUIT BREAKER (DEPENDING ON THE OPTION) IS TO BE INSTALLED ADJACENT TO THE OTHER INSTALLED TDFM-9X00 SYSTEM CIRCUIT BREAKERS/ FUSES, ON THE SAME BUS BAR, AND LABELLED AS "ASU". TESTING OF THE COMPONENT IS TO BE COMPLETED IN ACCORDANCE WITH NOTE 16.

POWER REQUIREMENT

UNIT	MINIMUM CURRENT DRAW	MAXIMUM CURRENT DRAW
TDFM-9000 TRANSCEIVER	500 mA	7.5 A
TDFM-9100 TRANSCEIVER	500 mA	7.5 A
TDFM-9200 TRANSCEIVER	500 mA	7.5 A
TDFM-9300 TRANSCEIVER	500 mA	7.5 A
FLX-3050B ANTENNA TUNER	50 mA	1.0 A
RC-9000	10 mA	100 mA
RC-9100	10 mA	100 mA
ASU-9000 ANTENNA SWITCHING UNIT	300 mA	300 mA

REVISION STATUS	
SHEET	REVISION
01	I
02	E
03	E

AVIONICS DESIGN SERVICES LTD. RELEASED

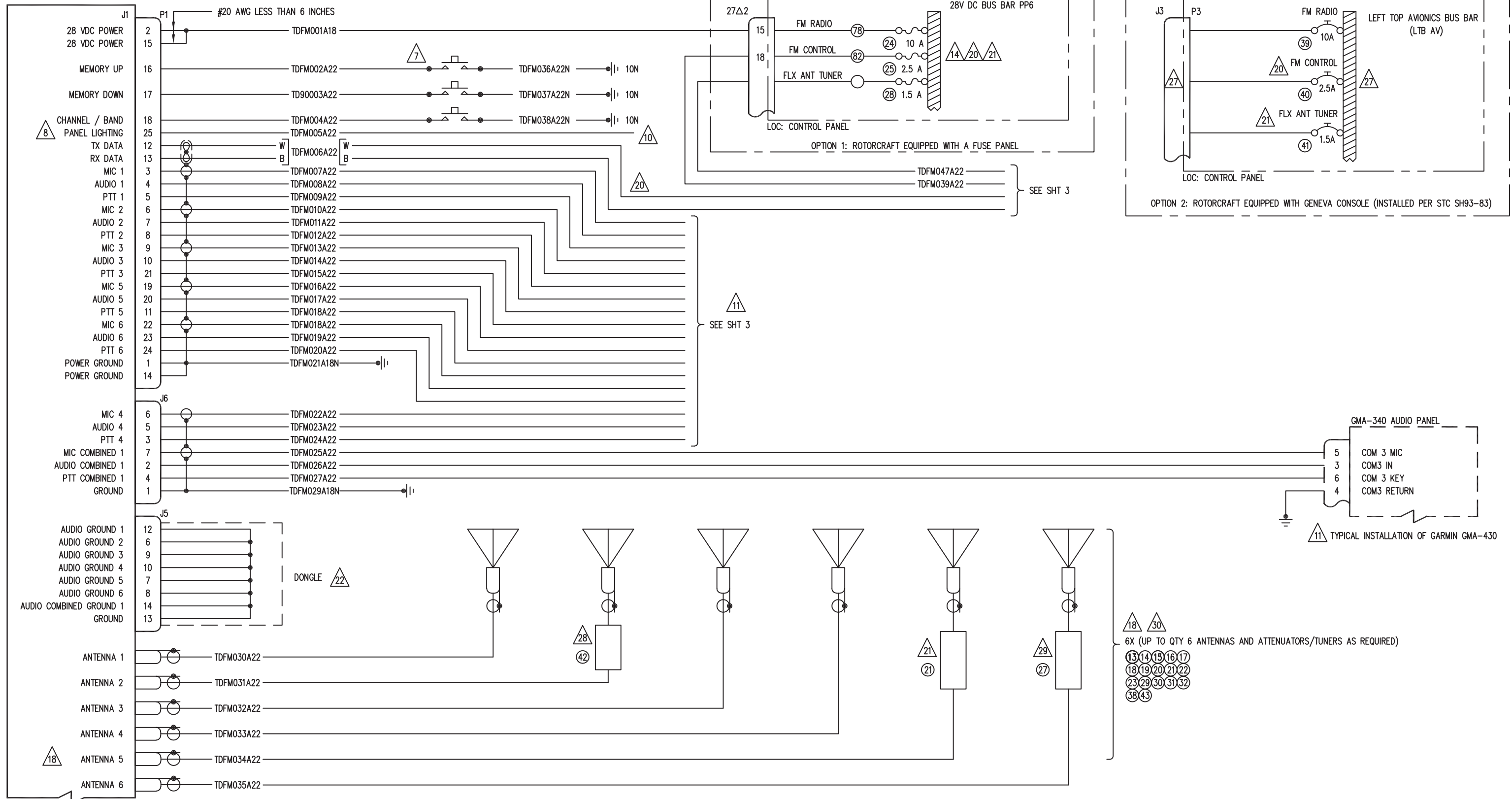
I	H	G	F	E	D	C	B	A	N/C	REVISION	DESCRIPTION
UPDATED REV STATUS. AMENDED NOTE 31.	UPDATED REV STATUS AND POWER REQUIREMENTS. ADDED NOTE 31 AND BOM ITEM 44.	REVISED NOTE 11. ADDED BOM ITEMS 38-42. CREATED ITEM 43 TO ADDRESS DUPLICATE ITEM 15. NOTES 25 THRU 30 ADDED. NOTE 20 & 21 REVISED. REDUNDANT NOTE 9 RESERVED.	UPDATE REV STATUS. ADD NOTE 24 AND BOM ITEM 37.	UPDATE REV STATUS. AMEND ITEM 11	UPDATE REV STATUS. AMEND NOTE 20. AMEND ITEMS 8, 34 & 35. AMEND POWER REQ'T TABLE. ADD -015 QTYs.	UPDATE REV STATUS. ADD ITEMS 33 TO 36 & FLAG NOTE 23. AMEND FLAG NOTE 15,16,18,22. AMEND PWR REQ'T TABLE & ITEM 7 QTYs. ADD -015 COLUMN IN BOM.	UPDATE REV STATUS. ADD BOM ITEMS 29 TO 32 WITH FLAG NOTE 18. REMOVE FLAG NOTE 19 AT ITEMS 2, 4, 6 & 12.	AMENDED NOTES 19 AND 20. ADDED PART NUMBER 121273-(0).	INITIAL RELEASE	03	DESCRIPTION
J. HABER 23/10/13	J. HABER 23/10/05	J. HABER 21/09/14	R. MASON 16/06/29	G. JOHNSTON 06/06/16	R. MACDONALD 14/11/03	R. MACDONALD 14/06/30	R. MACDONALD 02/12/30	E.CHARLEBOIS 13/30/09	R. MACDONALD 13/05/10	DRAWN	THE DESIGN DEPICTED IN THIS DRAWING IS THE EXCLUSIVE PROPERTY OF AVIONICS DESIGN SERVICES LTD. AND IN THE ACCEPTANCE OF THIS DRAWING THE RECIPIENT AGREES THAT IT WILL NOT BE USED FOR THE PURPOSE OF MANUFACTURE OR PROCUREMENT OF THE PART OR ASSEMBLY SHOWN HEREIN REPRODUCED OR OTHERWISE COPIED OR DISCLOSED TO ANY OTHER PERSON OR PARTY EXCEPT AS AUTHORIZED IN WRITING BY AVIONICS DESIGN SERVICES LTD.
C. HEIDEL	C. HEIDEL	I. PANESAR	C. HEIDEL	C. HEIDEL	R. GOW	R. GOW	R. GOW	R. GOW	R. GOW	APPROVED	

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Til FM TRANSCEIVER
INSTALL, EC AS-350

SIZE B NEXT HIGHER ASSY: -
SCALE: NTS
DRAWING No. CAD FILE #WD1300411
WD13004
DATE: 13/05/10 DRAWN: R. MACDONALD SHEET: 1 OF 3

TDFM-9000, TDFM-9100, TDFM-9200, OR TDFM-9300 TRANSCEIVER (9)(10)(11)(33)



LOC: CENTRE PEDESTAL

E	D	C	B	A	N/C	REVISION
NOTE 9,19 REMOVED. NOTE 20, 21, 28, 29 & 30 ADDED. ZONE C3 ADDED. NOTE 20. ADDED OPTION FOR CB'S. ZONE B1/A1, ITEMS 38 & 43 ADDED. ZONE B3 ITEM 42 & NOTE 28 ADDED.	MINOR EDITORIAL CHANGES.	AMEND EQUIPMENT DESC & ADD ITEM 33 ZONE D4.	ADD ITEMS 29, 30, 31 & 32 AT ZONE B1.	ADDED NOTE 20	INITIAL RELEASE	DESCRIPTION
J. HABER 21/09/14	R. MASON 16/06/29	R. MACDONALD 14/10/15	R. MACDONALD 14/05/14	E.CHARLEBOIS 13/06/17	R. MACDONALD 13/06/17	DRAWN DATE
I. PANESAR	C. HEIDEL	R. GOW	R. GOW	R. GOW	R.GOW	APPROVED

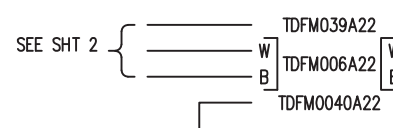
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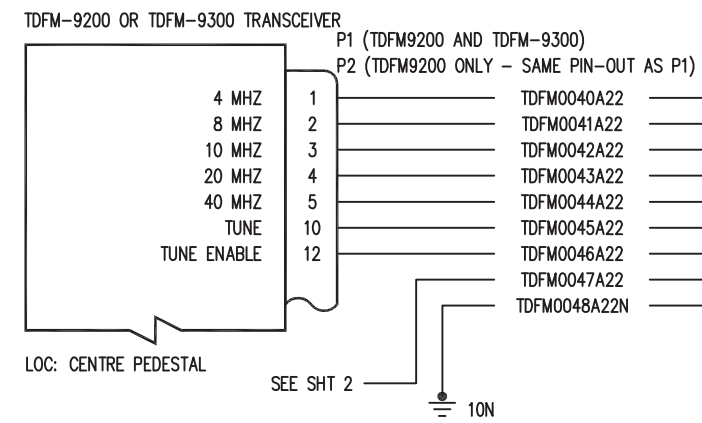
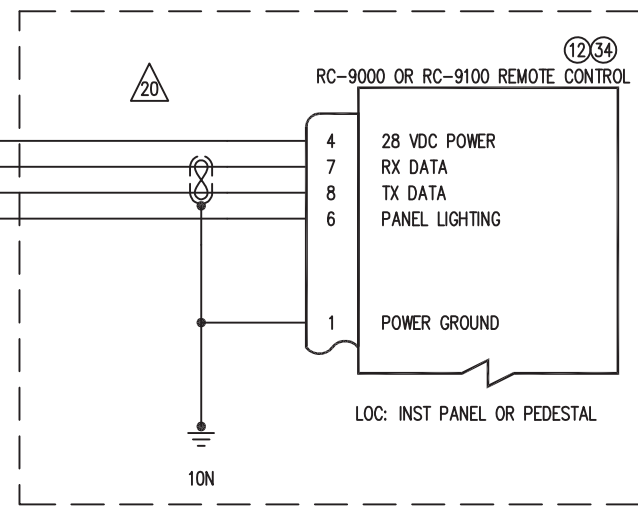
TiL FM TRANSCEIVER INSTALL, EC AS-350

SIZE: NEXT HIGHER ASSY: DRAWING No. CAD FILE #WD13004E2
SCALE: NTS: **WD13004**

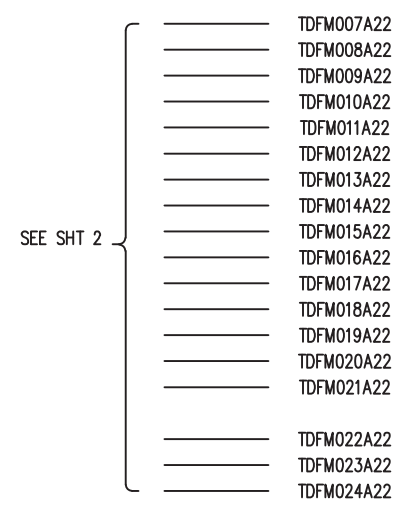
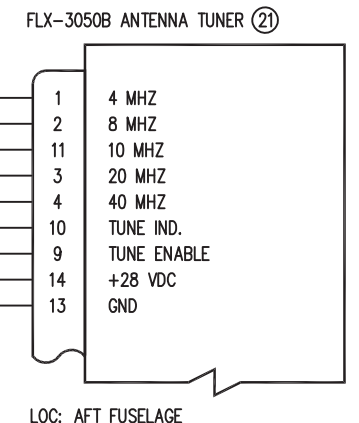
DATE: 13/05/10 DRAWN: R. MACDONALD SHEET: 2 OF 3



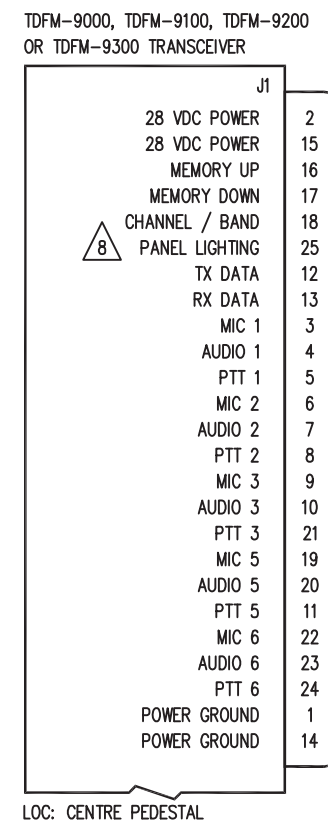
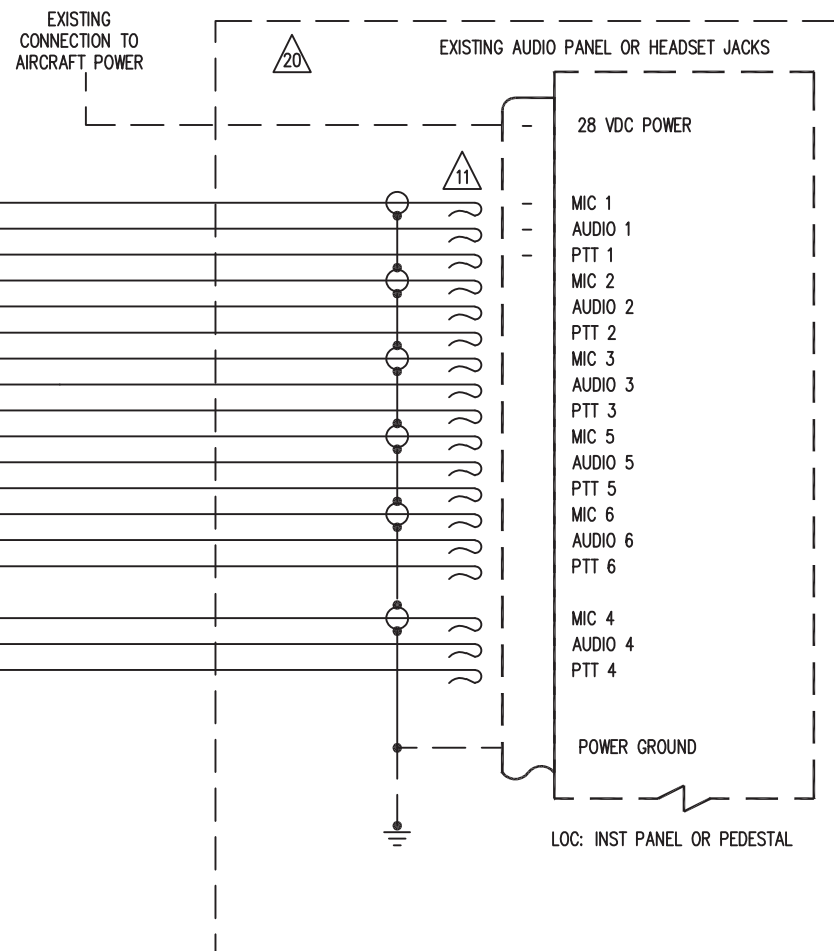
OPTION: RC-9000 OR RC-9100



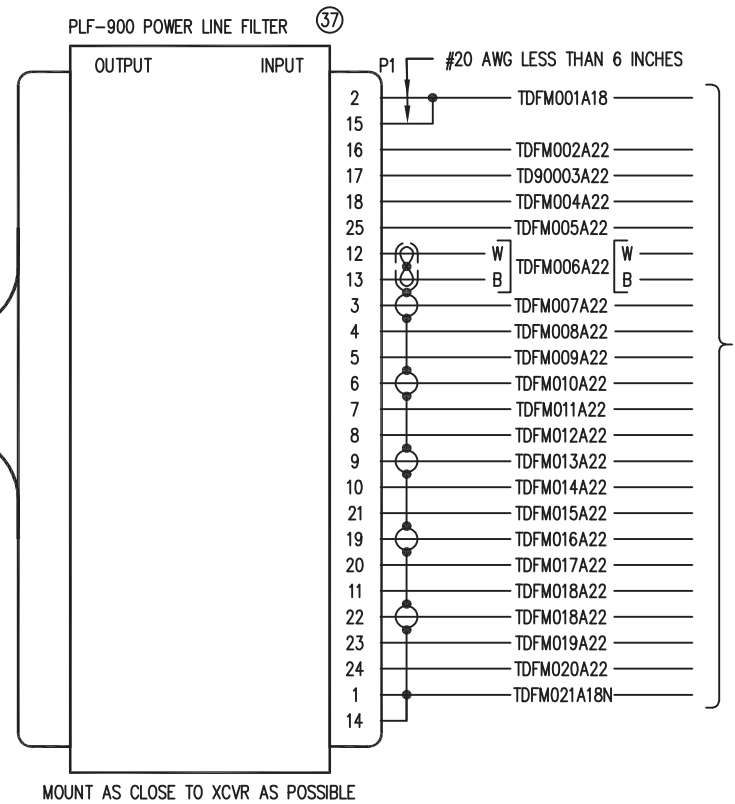
OPTION: FOXTRONICS FLX-3050B ANTENNA TUNER



OPTION: EXISTING AUDIO PANEL



OPTION: PLF-900 POWER LINE FILTER



E	D	C	B	A	N/C	REVISION	DESCRIPTION
ZONE D2, DELETED DUPLICATE ITEMS 10 & 11. ZONE C3, ADDED NOTE 11. ZONE C1/C2 CORRECTED FLEXTRONICS TO FOXTRONICS.	ADDED PLF-900 POWER LINE FILTER OPTION, ZONE B1-C2	ADD FLAG NOTE 15 AT ZONE D3. AMEND OPTION TEXT AT ZONE D4. AMEND EQUIP DESC & ADD ITEM 34 AT ZONE D3.	DELETE FLAG NOTE 19 AT ZONE D3 (NOTE 19 WAS DELETED AT REV A).	REPLACED WIRE CAP & STOW IN SECTION D2. REMOVED TEXT 'REFERENCE ONLY' IN SECTION C3. ADDED PART #12 TAG	INITIAL RELEASE		
J. HABER 21/09/14	R. MASON 16/06/29	R. MACDONALD 14/11/05	R. MACDONALD 14/05/14	E.CHARLEBOIS 13/24/09	R. MACDONALD 13/05/10	DRAWN DATE	
I. PANESAR	C. HEIDEL	R. GOW	R. GOW	R. GOW	R.GOW	APPROVED	

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**TiL FM TRANSCEIVER
INSTALL, EC AS-350**

SIZE: NEXT HIGHER ASSY: DRAWING No. CAD FILE #WD13004E3
SCALE: NTS: **WD13004**

DATE: 13/05/10 DRAWN: R. MACDONALD SHEET: 3 OF 3